

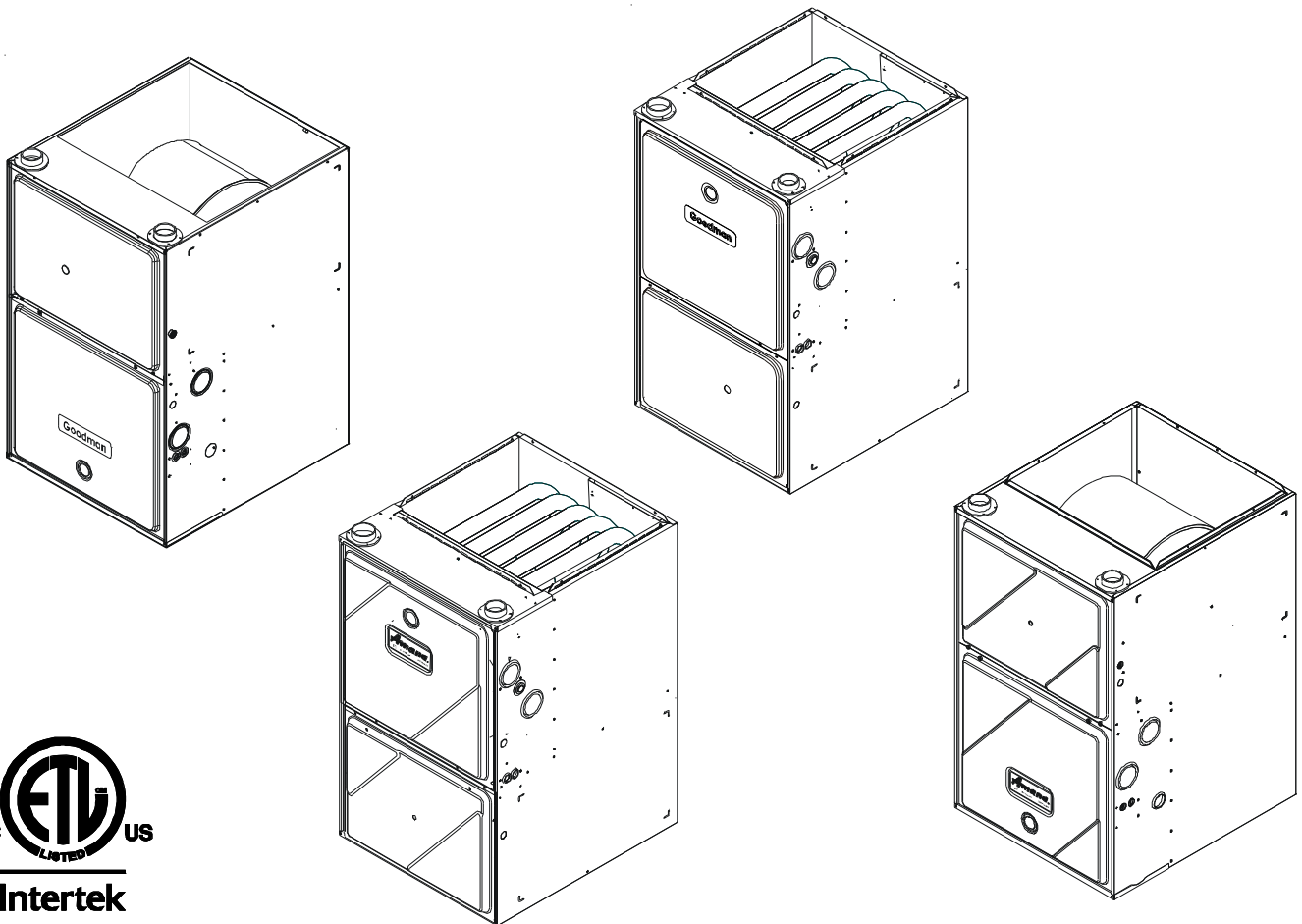
TECHNICAL MANUAL



ACVC9/AMVC95 GCVC9/GMVC95

90% UP TO 96% Gas Furnace Units

- Refer to Service Manual RS6612002 for troubleshooting information.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.



This manual is to be used by qualified, professionally trained HVAC technicians only. Goodman does not assume any responsibility for property damage or personal injury due to improper service procedures performed by an unqualified person.

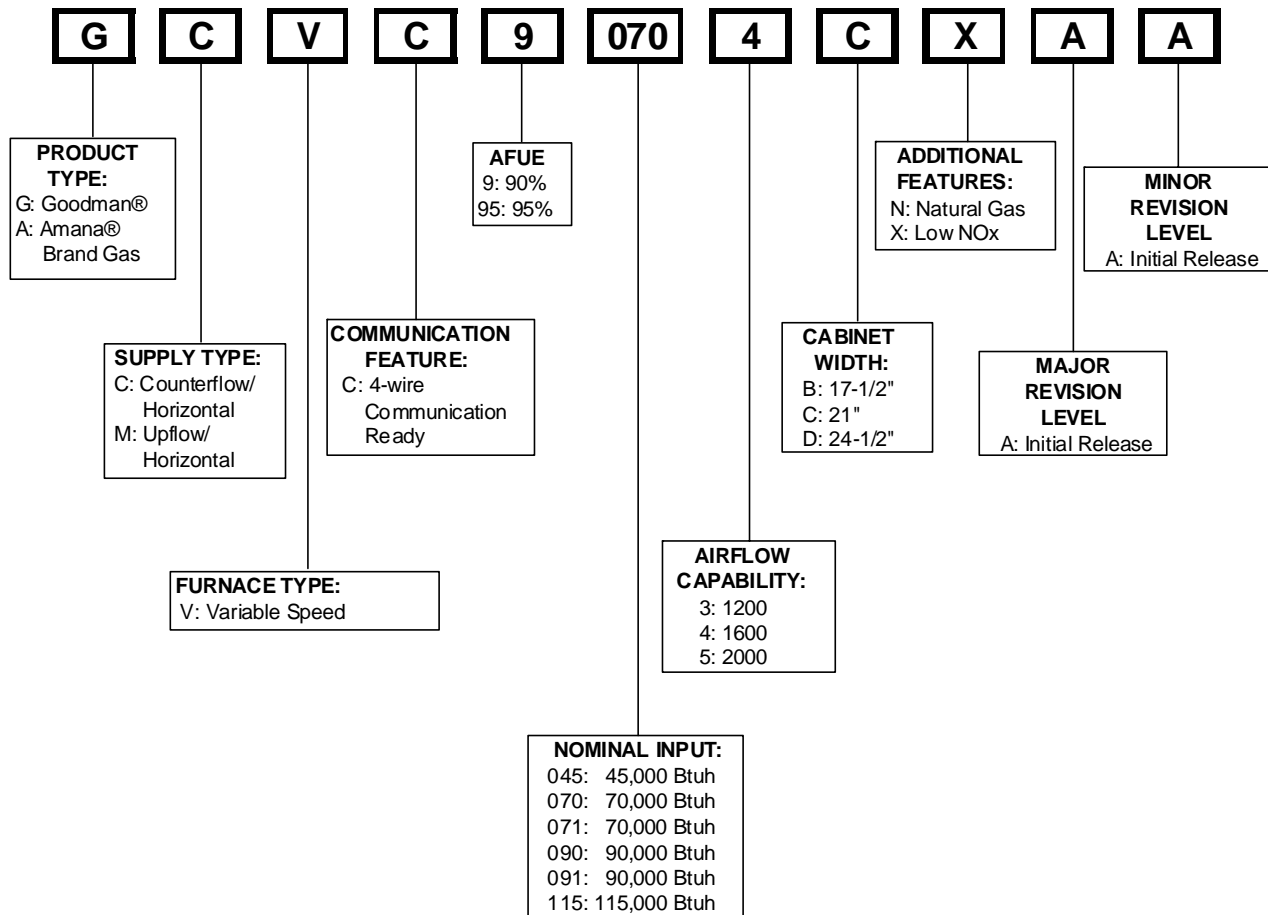
RT6612025r5
November 2013

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PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.



WARNING

HIGH VOLTAGE!

Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.



WARNING

Goodman will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.



WARNING

Installation and repair of this unit should be performed ONLY by individuals meeting the requirements of an "entry level technician", at a minimum, as specified by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. Please use these numbers when requesting service or parts information.

ACVC950714CXAD
ACVC950915DXAD
ACVC950714CXBA
ACVC950915DXBA
ACVC951155DXAA

GCVC951155DXAE
GCVC950714CXAD
GCVC950915DXAD
GCVC950714CXBA
GCVC950915DXBA

AMVC950453BXAE
AMVC950704CXAE
AMVC950905CXAD
AMVC950905DXAE
AMVC951155DXAE
AMVC950453BXBA
AMVC950704CXBA
AMVC950905CXBA
AMVC950905DXBA
AMVC951155DXBA

GMVC950453BXAE
GMVC950704CXAE
GMVC950905CXAD
GMVC950905DXAE
GMVC951155DXAE
GMVC950453BXBA
GMVC950704CXBA
GMVC950905CXBA
GMVC950905DXBA
GMVC951155DXBA

*Earlier revisions of these units can be found in RT6612021**



WARNING

The United States Environmental Protection Agency ("EPA") has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.



WARNING

Do not connect or use any device that is not design certified by Goodman for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.



WARNING

To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

PRODUCT DESIGN

General Operation

Models covered by this manual come with a new 4-wire communicating PCB. When paired with a compatible communicating indoor unit and a CTK0* communicating thermostat, these models can support 4-wire communication protocol and provide more troubleshooting information. These models are also backward compatible with the legacy thermostat wiring.

The GCVC9, GCVC95, GMVC95, AMVC95 and ACVC95 furnaces are equipped with an electronic ignition device to light the burners and an induced draft blower to exhaust combustion products.

An interlock switch prevents furnace operation if the blower door is not in place. Keep the blower access doors in place except for inspection and maintenance.

These furnaces are also equipped with a self-diagnosing electronic control module. In the event a furnace component is not operating properly, the control module's dual 7-segment LED's will display an alpha-numeric code, depending upon the problem encountered.

For information regarding diagnostics and LED codes refer to the Installation Instructions shipped with the furnace or the service manual .PDF available at www.goodmanmfg.com or www.amana-hac.com.

The rated heating capacity of the furnace should be greater than or equal to the total heat loss of the area to be heated. The total heat loss should be calculated by an approved method or in accordance with "ASHRAE Guide" or "Manual J-Load Calculations" published by the Air Conditioning Contractors of America.

*Obtain from: American National Standards Institute 1430 Broadway New York, NY 10018

Location Considerations

- The furnace should be as centralized as is practical with respect to the air distribution system.
- Do not install the furnace directly on carpeting, tile, or combustible material other than wood flooring.
- When suspending the furnace from rafters or joists, use 3/8" threaded rod and 2" x 2" x 1/8" angle as shown in the Installation and Service Instructions. The length of the rod will depend on the application and clearance necessary.
- When installed in a residential garage, the furnace must be positioned so the burners and ignition source are located not less than 18 inches (457 mm) above the floor and protected from physical damage by vehicles.

Notes:

1. Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.
2. Line voltage wiring can enter through the right or left side of the furnace. Low voltage wiring can enter through the right or left side of furnace.
3. Conversion kits for propane gas and high altitude natural and propane gas operation are available. See High Altitude Derate chart for details.
4. Installer must supply the following gas line fittings, depending on which entrance is used:

Left -- Two 90° Elbows, one close nipple, straight pipe

Right -- Straight pipe to reach gas valve.

Accessibility Clearances (Minimum)

MVC95 MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS (INCHES)						
POSITION*	FRONT	SIDES	REAR	TOP	FLUE	FLOOR
Upflow	3	0	0	1	0	C
Horizontal	Alcove	6	0	4	0	C

*= All positioning is determined as installed unit is viewed from the front.

C= If placed on combustible floor, floor MUST be wood only.

NC= For installation on non-combustible floors only. A combustible subbase must be used for installations on combustible flooring.

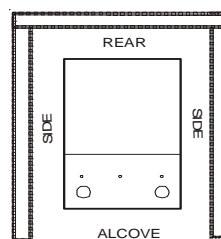
*CVC9 MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS (INCHES)						
POSITION*	FRONT	SIDES	REAR	TOP	FLUE	FLOOR
Upflow	1	0	0	1	0	NC
Horizontal	Alcove	6	0	4	0	C

*= All positioning is determined as installed unit is viewed from the front.

C= If placed on combustible floor, floor MUST be wood only.

NC= For installation on non-combustible floors only. A combustible subbase must be used for installations on combustible flooring.

Alcove Illustration



24" at front is required for servicing or cleaning.

Note: In all cases accessibility clearance shall take precedence over clearances from the enclosure where accessibility clearances are greater. All dimensions are given in inches.

PRODUCT DESIGN

High Altitude Derate

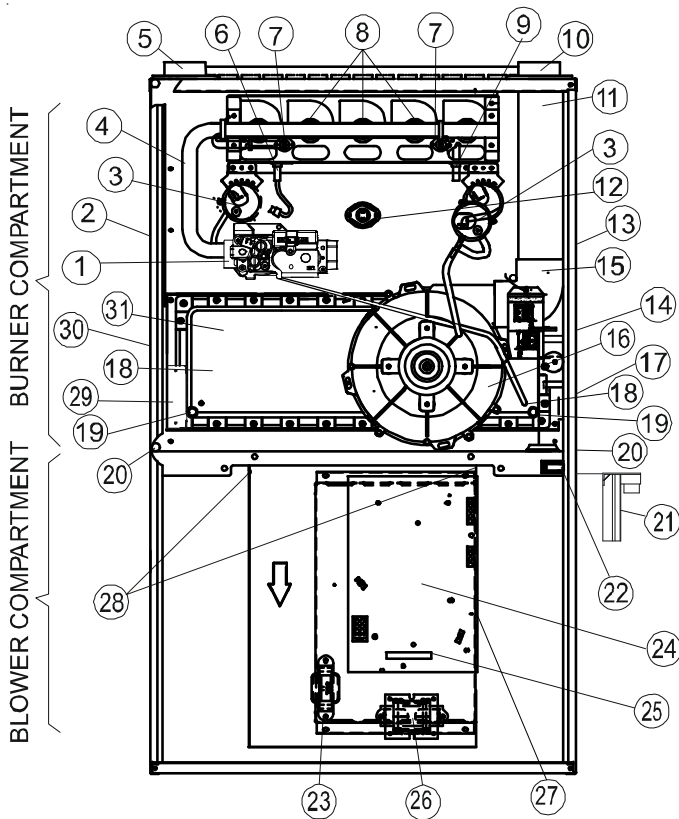
When this furnace is installed at high altitude, the appropriate High Altitude orifice kit must be installed. This is required due to the natural reduction in the density of both the gas fuel and combustion air as altitude increases. The kit will provide the proper design certified input rate within the specified altitude range.

High altitude kits are purchased according to the installation altitude and usage of either natural or propane gas. Refer to the chart below for a tabular listing of appropriate altitude ranges and corresponding manufacturer's high altitude Natural Gas and Propane Gas kits. For a tabular listing of appropriate altitude ranges and corresponding manufacturer's High Altitude Pressure Switch kits, refer to either the *Pressure Switch Trip Points & Usage Chart* in this manual or the *Accessory Charts* in Service Instructions.

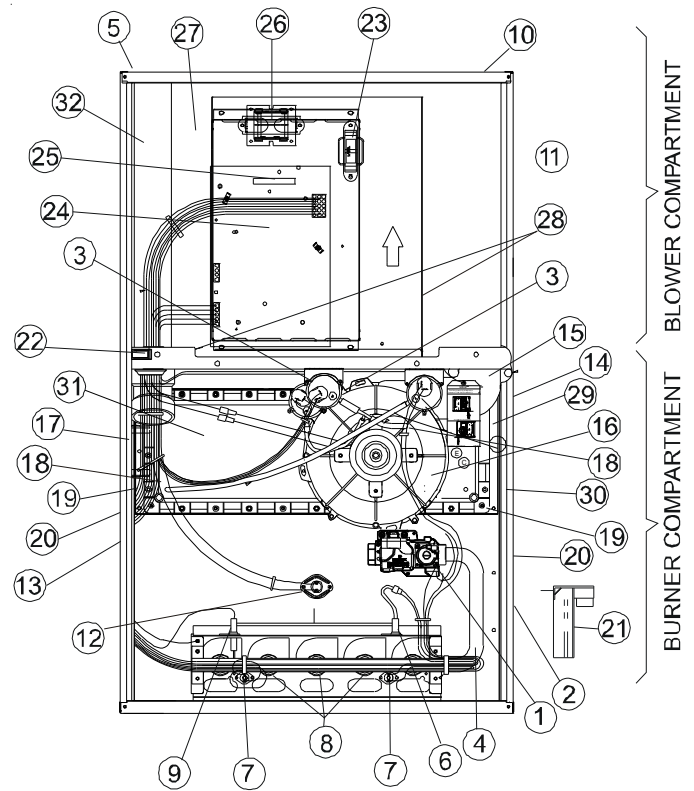
Furnace	"STANDARD" and "HIGH ALTITUDE" KITS								
	0 - 7,000 Feet (Standard Altitude)			7,001 - 9,000 Feet			9,001 - 11,000 Feet		
	Gas Orifices		ID Blwr Pressure Switch	Gas Orifices		ID Blwr Pressure Switch	Gas Orifices		ID Blwr Pressure Switch
	Natural	Propane		Natural	Propane		Natural	Propane	
GMVC950453BX* GMVC950704CX* AMVC950453BX* AMVC950704CX*	No Change	LPM-06* ⁽¹⁾ #55 Orifice	No Change	HANG13 #44 Orifice	HALP11 #56 Orifice	HAPS28	HANG14 #45 Orifice	HALP11 #56 Orifice	HAPS28
GMVC950905CX* AMVC950905CX*	No Change	LPM-06* ⁽¹⁾ #55 Orifice	No Change	N/A	N/A	N/A	N/A	N/A	N/A
GMVC950905DX* GMVC951155DX* AMVC950905DX* AMVC951155DX*	No Change	LPM-06* ⁽¹⁾ #55 Orifice	No Change	HANG13 #44 Orifice	HALP11 #56 Orifice	HAPS29	HANG14 #45 Orifice	HALP11 #56 Orifice	HAPS29
GCVC91155DX* ACVC951155DX*	No Change	LPM-06* ⁽¹⁾ #55 Orifice	No Change	HANG13 #44 Orifice	HALP11 #56 Orifice	HAPS29	HANG14 #45 Orifice	HALP11 #56 Orifice	HAPS31
GCVC950714CX* GCVC950915DX* ACVC950714CX* ACVC950915DX*	No Change	LPM-06* ⁽¹⁾ #55 Orifice	No Change	N/A	N/A	N/A	N/A	N/A	N/A

¹ LPM-06* supports Honeywell and White-Rodgers 2-stage valves

COMPONENT IDENTIFICATION



Upflow/Horizontal



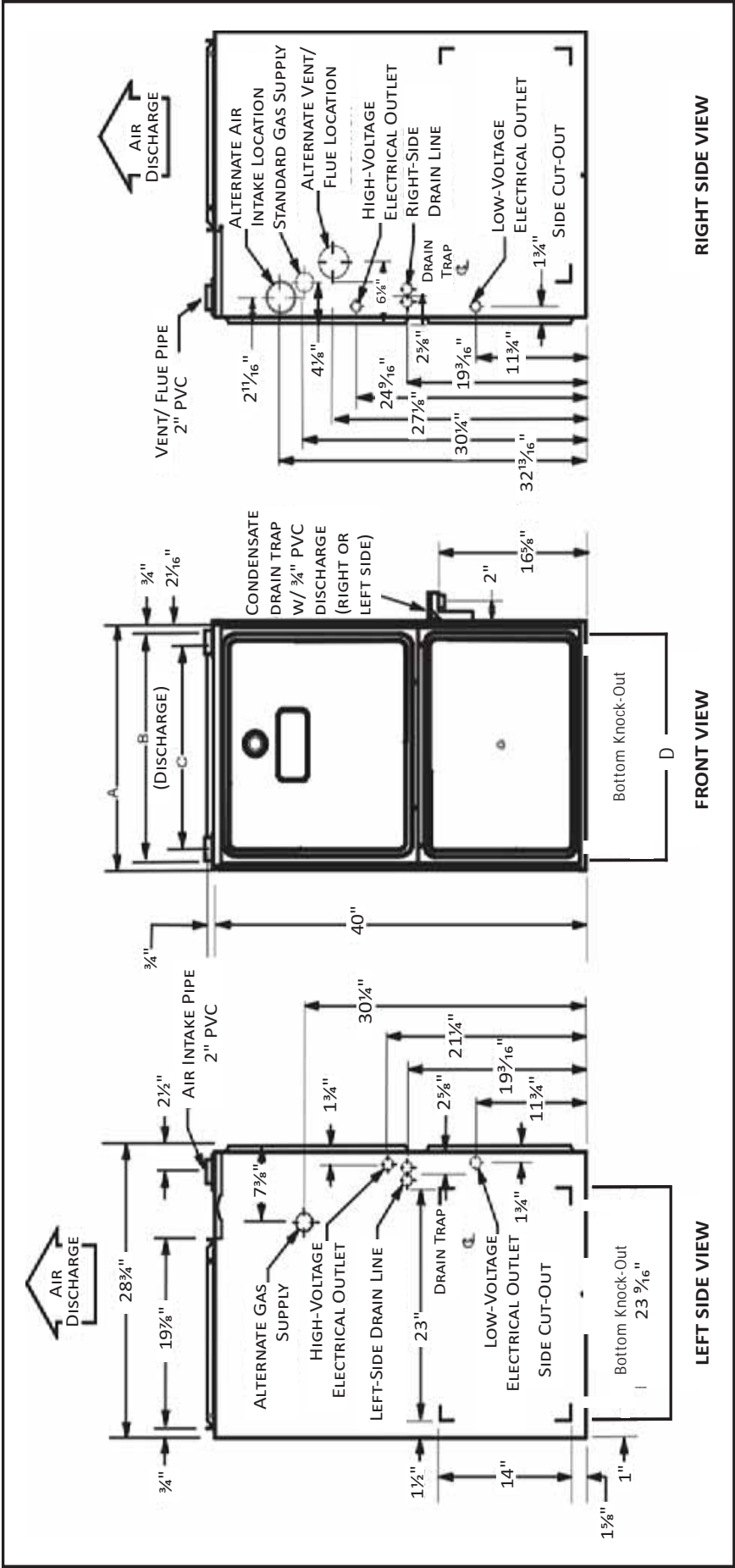
Counterflow/Horizontal

- 1 Two-Stage Gas Valve
- 2 Gas Line Entrance (Alternate)
- 3 Pressure Switch(es)
- 4 Gas Manifold
- 5 Combustion Air Intake Connection
- 6 Hot Surface Igniter
- 7 Rollout Limit
- 8 Burners
- 9 Flame Sensor
- 10 Flue Pipe Connection
- 11 Flue Pipe
- 12 Primary Limit
- 13 Gas Line Entrance
- 14 Flue Pipe Connection (Alternate)
- 15 Rubber Elbow
- 16 Two-Speed Induced Draft Blower
- 17 Electrical Connection Inlets (Alternate)

- 18 Coil Front Cover Pressure Tap
- 19 Coil Front Cover Drain Port
- 20 Drain Line Penetrations
- 21 Drain Trap
- 22 Blower Door Interlock Switch
- 23 Inductor (Not All Models)
- 24 Two-Stage Integrated Control Module (with fuse and diagnostic LED)
- 25 24 Volt Thermostat Connections
- 26 Transformer (40 VA)
- 27 ECM Variable Speed Circulator Blower
- 28 Auxiliary Limit
- 29 Junction Box
- 30 Electrical Connection Inlets
- 31 Coil Front Cover
- 32 Combustion Air Inlet Pipe (*CVC9/95 only)

PRODUCT DIMENSIONS

GMVC95/AMVC95__X*



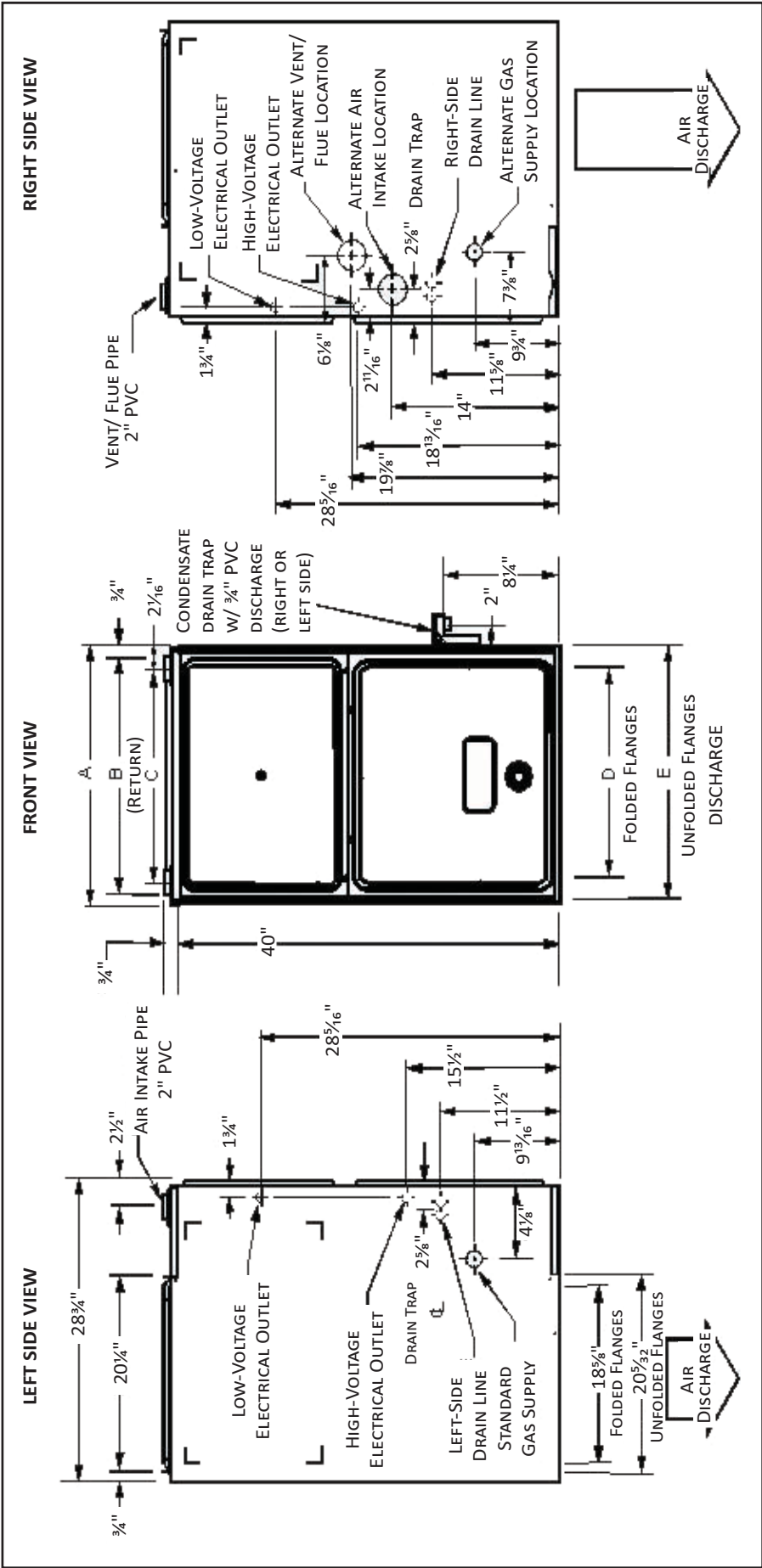
CABINET SIZE	UNITS	A	B	C	D
SMALL	0453BX*	17 1/2	15	12 3/8	12 5/8
MEDIUM	0704CX* 0905CX*	21	19	16 3/8	14 5/8
LARGE	0905DX* 1155DX*	24 1/2	23	20 3/8	18 5/8

All dimensions are in inches.

7 **NOTE:** Airflow area will be reduced by approximately 18% if duct flanges are not unfolded. This could cause performance issues and noise issues.

PRODUCT DIMENSIONS

GVCVC9/ACVC9_____X*



CABINET SIZE	UNITS	A	B	C	D	E
MEDIUM	0714CX*	21	19	16 3/8	14 5/8	17 1/2
LARGE	0915DX* 1155DX*	24 1/2	23	20 3/8	18 5/8	20 7/8

All dimensions are in inches.

NOTE: Airflow area will be reduced by approximately 18% if duct flanges are not unfolded. This could cause performance issues and noise issues.

PRODUCT DESIGN

PRESSURE SWITCH TRIP POINTS AND USAGE CHART								
MODEL	NEGATIVE PRESSURE ID BLOWER WITH FLUE NOT FIRING TYPICAL SEA LEVEL DATA ⁽¹⁾		NEGATIVE PRESSURE ID BLOWER WITH FLUE FIRING TYPICAL SEA LEVEL DATA ⁽²⁾		NEGATIVE PRESSURE COIL COVER WITH FLUE NOT FIRING TYPICAL SEA LEVEL DATA ⁽¹⁾		NEGATIVE PRESSURE COIL COVER WITH FLUE FIRING TYPICAL SEA LEVEL DATA ⁽²⁾	
	LOW FIRE	HIGH FIRE	LOW FIRE	HIGH FIRE	LOW FIRE	HIGH FIRE	LOW FIRE	HIGH FIRE
GMVC950453BX* GMVC950704CX* AMVC950453BX* AMVC950704CX*	-0.45	-0.92	-0.30	-0.75	-0.25	-0.25	-0.10	-0.10
GMVC950905CX* AMVC950905CX*	-0.75	-1.60	-0.60	-1.40	-0.25	-0.25	-0.10	-0.10
GMVC950905DX* GMVC951155DX* AMVC950905DX* AMVC951155DX*	-0.65	-1.27	-0.50	-1.10	-0.25	-0.25	-0.10	-0.10
GCVC950714CX* ACVC950714CX*	-0.95	-1.80	-0.80	-1.60	-0.25	-0.25	-0.10	-0.10
GCVC950915DX* ACVC950915DX*	-0.95	-1.80	-0.80	-1.60	-0.25	-0.25	-0.10	-0.10
GCVC91155DX* ACVC91155DX*	-0.35	-0.70	-0.20	-0.55	-0.52	-0.52	-0.37	-0.37

(1) Data given is least negative pressure required for pressure switch to close.

(2) Data given is least negative pressure required for pressure switch to remain closed.

Note: The typical sea level negative pressure data represents the minimum pressures expected. Shorter length of flue pipe or single pipe systems compared to dual pipe systems should show higher (greater negative) pressures.

PRODUCT DESIGN

PRESSURE SWITCH TRIP POINTS AND USAGE CHART											
MODEL	0 to 7,000 ft.						7,001 ft. to 11,000 ft.				
	TRIP POINT COIL COVER PRESSURE SWITCH		COIL COVER PRESSURE SWITCH PART #	TRIP POINT ID BLOWER PRESSURE SWITCH		ID BLOWER PRESSURE SWITCH PART #	TRIP POINT COIL COVER PRESSURE SWITCH		TRIP POINT ID BLOWER PRESSURE SWITCH		
	LOW FIRE	HIGH FIRE		LOW FIRE	HIGH FIRE		LOW FIRE	HIGH FIRE	LOW FIRE	HIGH FIRE	
	GMVC950453BX*	-0.10	-0.10	20197308	-0.30	-0.75	111 77113	-0.10	-0.10	-0.22	-0.55
	GMVC950704CX*										
AMV C950453BX*											
AMV C950704CX*											
										HAPS28 11177115	
GMVC950905CX*	-0.10	-0.10	20197308	-0.60	-1.40	0130F00251	N/A	N/A	N/A	N/A	
AMV C950905CX*											
GMVC950905DX*	-0.10	-0.10	20197308	-0.50	-1.10	111 77114	-0.10	-0.10	-0.38	-0.82	
GMVC951155DX*											
AMV C950905DX*										HAPS29 11177116	
AMV C951155DX*											
GCVC950714CX*	-0.10	-0.10	0130F00070	-0.80	-1.60	0130F00100	N/A	N/A	N/A	N/A	
ACVC950714CX*											
GCVC950915DX*	-0.10	-0.10	0130F00070	-0.80	-1.60	0130F00100	N/A	N/A	N/A	N/A	
ACVC950915DX*											
GCVC91155DX*	-0.37	-0.37	20197313	-0.20	-0.55	111 77118	-0.37	-0.37	-0.15	-0.30	
ACVC91155DX*										HAPS31	

Note: All installations above 7,000 ft. require a pressure switch change. For installations in Canada the *MVC95 & *CVC9/95 furnaces are certified only to 4500 ft.

Note: Replacement pressure switch number is listed below high altitude kit number.

Note: All negative pressure readings are in inches of water column (" w.c.).

PRODUCT DESIGN

PRIMARY LIMIT						
Part Number	20162903	20162904	20162905	20162907	20162908	0130F001 05
Open Setting (°F)	160	150	145	155	170	130
GMVC950453BX* AMVC950453BX*	---	---	1	---	---	---
GMVC950704CX* AMVC950704CX*	---	---	---	1	---	---
GMVC950905CX* AMVC950905CX*	---	---	---	---	---	1
GMVC950905DX* AMVC950905DX*	---	---	1	---	---	---
GMVC951155DX* AMVC951155DX*	---	1	---	---	---	---

GCVC950714CX* ACVC950714CX*	---	1	---	---	---	---
GCVC950915DX* ACVC950915DX*	---	---	---	---	---	1
GCVC91155DX* ACVC951155DX*	----	----	1	----	----	---

ROLLOUT LIMIT SWITCHES						
Part Number	10123512	10123517	10123518	10123533	10123534	10123537
Open Setting (°F)	325	210	170	200	220	190
GMVC950453BX* AMVC950453BX*	---	---	1	---	---	---
GMVC950704CX* AMVC950704CX*	---	---	---	2	---	---
GMVC950905CX* AMVC950905CX*	---	---	---	2	---	---
GMVC950905DX* AMVC950905DX*	---	---	---	---	---	2
GMVC951155DX* AMVC951155DX*	---	---	---	2	---	---

GCVC950714CX* ACVC950714CX*	----	2	----	----	----	----
GCVC950915DX* ACVC950915DX*	---	2	---	---	---	---
GCVC91155DX* ACVC951155DX*	----	2	----	----	----	---

AUXILIARY LIMIT SWITCHES						
Part Number	10123534	10123535	10123537	10123536	10123533	0130F00038
Open Setting (°F)	220	150	190	180	200	120
GMVC950453BX* AMVC950453BX*	---	2	---	---	---	---
GMVC950704CX* AMVC950704CX*	---	---	2	---	---	---
GMVC950905CX* AMVC950905CX*	---	---	---	2	---	---
GMVC950905DX* AMVC950905DX*	---	---	---	2	---	---
GMVC951155DX* AMVC951155DX*	---	---	---	---	2	---

GCVC950714CX* ACVC950714CX*	---	---	---	---	---	2
GCVC950915DX* ACVC950915DX*	---	---	---	---	---	2
GCVC91155DX* ACVC951155DX*	---	---	---	---	---	2

PRODUCT DESIGN

Thermostats:

ComfortNet™ CTK0* Thermostat Kit

Filters:

Filters are required with this furnace and must be provided by the installer. The filters used must comply with UL900 or CAN/ULCS111 standards. Installing this furnace without filters will void the unit warranty

Upflow Filters

Return air filters may be installed at the furnace side and/or bottom return openings. The furnace bottom return opening and side openings will accommodate the following filter sizes depending on cabinet size:

Side Return Opening(s)		
Cabinet Width (in.)	Nominal Filter Size (in.)	Approx. Flow Area (in ²)
All	16 x 25 x 1	400

Bottom Return Opening		
Cabinet Width (in.)	Nominal Filter Size (in.)	Approx. Flow Area (in ²)
17-1/2	14 x 25 x 1	350
21	16 x 25 x 1	400
24-1/2	20 x 25 x 1	500

Refer to Minimum Filter Area tables to determine filter area requirement. **NOTE:** Filters can also be installed elsewhere in the duct system such as a central return.

		UP FLOW COOLING AIRFLOW REQUIREMENT (CFM)							
		600	800	1000	1200	1400	1600	1800	2000
Input Airflow	0453__X*	415*	415*	480	576	---	---	---	---
	0704__X*	---	---	636*	636*	672	768	---	---
	0905__X*	---	---	---	826*	826*	826*	864	960
	1155__X*	---	---	---	875*	875*	875*	875*	960

		COUNTERFLOW COOLING AIRFLOW REQUIREMENT (CFM)							
		600	800	1000	1200	1400	1600	1800	2000
Input Airflow	0714__X*	---	---	634*	634*	672	768	---	---
	0915__X*	---	---	---	819*	819*	819*	864	960
	1155__X*	---	---	---	860*	860*	860*	864	960

*Minimum filter area dictated by heating airflow requirement.

Disposable Minimum Filter Area (in²)

[Based on a 300 ft/min filter face velocity]

PRODUCT DESIGN

		UPFLOW COOLING AIRFLOW REQUIREMENT (CFM)							
		600	800	1000	1200	1400	1600	1800	2000
Input_Airflow	0453__X*	207*	207*	240	288	---	---	---	---
	0704__X*	---	---	318*	318*	336	384	---	---
	0905__X*	---	---	---	413*	413*	413*	432	480
	1155__X*	---	---	---	437*	437*	437*	432	480

		COUNTERFLOW COOLING AIRFLOW REQUIREMENT (CFM)							
		600	800	1000	1200	1400	1600	1800	2000
Input_Airflow	0714__X*	---	---	316*	316*	336	384	---	---
	0915__X*	---	---	---	409*	409*	409*	432	480
	1155__X*	---	---	---	430*	430*	430*	432	480

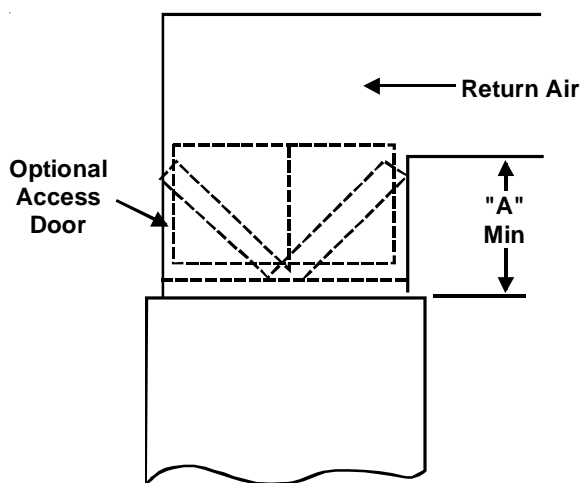
*Minimum filter area dictated by heating airflow requirement.

Disposable Minimum Filter Area (in²)

[Based on a 600 ft/min filter face velocity]

Counterflow Filters

Return air filters may be installed at the at the counterflow top return. A field supplied center filter support must be provided by the installer in order to use the top return. The furnace will accommodate the following counterflow top return filter sizes depending on cabinet size:



Counterflow Top Return				
Cabinet Width	Filter Area (in ²)	Qty	Filter Size (in)	Dimension "A" (in)
17 1/2	600	2	15 X 20 X 1	14.2
21				13.0
24 1/2				11.3
17 1/2	800	2	20 X 20 X 1	19.7
21				18.8
24 1/2				17.7
17 1/2	1000	2	25 X 20 X 1	25.0
21				24.3
24 1/2				23.4

Refer to Minimum Filter Area tables to determine filter area requirement. **NOTE:** Filters can also be installed elsewhere in the duct system such as a central return.

FURNACE SPECIFICATIONS

A/GMVC95

MODEL	*MVC950453 BX*	*MVC950704 CX*	*MVC950905 CX*	*MVC950905 DX*	*MVC951155 DX*
BTUH					
Natural Gas Input (High Fire)	45,000	68,000	90,000	90,000	113,000
Natural Gas Output (High Fire)	43,200	65,300	86,500	86,500	108,600
LP Gas Input (High Fire)	40,500	61,200	81,000	81,000	101,700
LP Gas Output (High Fire)	38,900	58,800	77,800	77,800	97,700
A.F.U.E.	96.1%	96.1%	96.1%	96.1%	96.1%
Rated External Static (" w.c.)	.20 - .50	.20 - .50	.20 - .50	.20 - .50	.20 - .50
Temperature Rise (°F)	30 - 60	30 - 60	30 - 60	30 - 60	35 - 65
ID Blower Pressure Switch Trip Point (" w.c.)	-0.75	-0.75	-1.40	-1.10	-1.10
Front Cover Pressure Switch Trip Point (" w.c.)	-0.10	-0.10	-0.10	-0.10	-0.10
Blower Wheel (D" x W")	10 x 8	10 x 10	11 x 10	11 x 10	11 x 10
Blower Horsepower	1/2	3/4	1	1	1
Blower Speeds	Refer to Blower CFM Charts				
Max CFM @ 0.5 E.S.P.					
Power Supply	115-60-1	115-60-1	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA) ⁽¹⁾	11.3	14.1	14.4	14.4	14.4
Maximum Overcurrent Device ⁽²⁾	15.0	15.0	15.0	15.0	15.0
Transformer (VA)	40	40	40	40	40
Primary Limit Setting (°F)	145	155	130	145	150
Auxiliary Limit Setting (°F)	150	190	180	180	200
Rollout Limit Setting (°F)	170	200	200	190	200
Fan Delay On Heating	30 secs.	30 secs.	30 secs.	30 secs.	30 secs.
Off Heating ⁽³⁾	150 secs.	150 secs.	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 sec	5 sec	5 sec	5 sec	5 sec
Off Cooling	45 secs.	45 secs.	45 secs.	45 secs.	45 secs.
Gas Supply Pressure (Natural/Propane) ("w.c.)	7 / 11	7 / 11	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) ("w.c.)	3.5 / 10	3.5 / 10	3.5 / 10	3.5 / 10	3.5 / 10
Orifice Size (Natural/Propane)	43 / 55	43 / 55	43 / 55	43 / 55	43 / 55
Number of Burners	2	3	4	4	5
Vent Connector Diameter (inches) ⁽⁴⁾	2	2	2	2	2
Combustion Air Connector Diameter (inches) ⁽⁵⁾	2	2	2	2	2
Shipping Weight (lbs.)	123	142	150	155	165

NOTE: Low fire input is 70% of high fire input

1. These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
2. For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

FURNACE SPECIFICATIONS

A/GCVC9

MODEL	GCVC91155 DX*	ACVC951155 DX*	*CVC950714 CX*	*CVC950915 DX*
BTUH				
Natural Gas Input (High Fire)	113,000	113,000	68,000	90,000
Natural Gas Output (High Fire)	105,100	105,100	64,600	85,500
LP Gas Input (High Fire)	101,700	101,700	61,200	81,000
LP Gas Output (High Fire)	94,600	94,600	58,100	77,000
A.F.U.E.	93.0%	93.0%	95.0%	95.0%
Rated External Static (" w.c.)	.20 - .50	.20 - .50	.20 - .50	.20 - .50
Temperature Rise (°F)	40 - 70	40 - 70	25 - 55	25 - 55
ID Blower Pressure Switch High Fire Trip Point (" w.c.)	-0.55	-0.55	-1.60	-1.60
Front Cover Pressure Switch Trip Point (" w.c.)	-0.37	-0.37	-0.10	-0.10
Blower Wheel (D" x W")	11 x 10	11 x 10	10 x 10	11 x 10
Blower Horsepower	1	1	3/4	1
Blower Speeds	Refer to Blower CFM Charts			
Max CFM @ 0.5 E.S.P.				
Power Supply	115-60-1	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA) ⁽¹⁾	14.4	14.4	11.2	15.0
Maximum Overcurrent Device ⁽²⁾	15.0	15.0	15.0	15.0
Transformer (VA)	40	40	40	40
Primary Limit Setting (°F)	145	145	150	130
Auxiliary Limit Setting (°F)	120	120	120	120
Rollout Limit Setting (°F)	210	210	210	210
Fan Delay On Heating	30 secs.	30 secs.	30 secs.	30 secs.
Off Heating ⁽³⁾	150 secs.	150 secs.	150 secs.	150 secs.
Fan Delay On Cooling	5 sec	5 sec	5 sec	5 sec
Off Cooling	45 secs.	45 secs.	45 secs.	45 secs.
Gas Supply Pressure (Natural/Propane) ("w.c.)	7 / 11	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) ("w.c.)	3.5 / 10	3.5 / 10	3.5 / 10	3.5 / 10
Orifice Size (Natural/Propane)	43 / 55	43 / 55	43 / 55	43 / 55
Number of Burners	5	5	3	4
Vent Connector Diameter (inches) ⁽⁴⁾	2	2	2	2
Combustion Air Connector Diameter (inches) ⁽⁵⁾	2	2	2	2
Shipping Weight (lbs.)	160	160	139	158

NOTE: Lowfire input is 70% of high fire input

- These furnaces are manufactured for natural gas operation. Optional Kits are available for conversion to propane gas operation.
- For elevations above 2000 ft. the rating should be reduced by 4% for each 1000 ft. above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
- The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufactures method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
- Minimum Circuit Ampacity calculated as: (1.25 x Circulator Blower Amps) + I.D. Blower Amps.

BLOWER PERFORMANCE SPECIFICATIONS

*MVC950453BX Cooling/Heating Speed Charts

*MVC950453BX Cooling Speed (@ .1" - .8" w.c. ESP)			
Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	540	351
	Minus 5%	570	371
	Normal	600	390
	Plus 5%	630	410
	Plus 10%	660	429
B	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
C	Minus 10%	900	585
	Minus 5%	950	618
	Normal	1,000	650
	Plus 5%	1,050	683
	Plus 10%	1,100	715
D	Minus 10%	1,080	702
	Minus 5%	1,140	741
	Normal	1,200	780
	Plus 5%	1,260	819
	Plus 10%	1,320	858

*MVC950453BX Heating Speed (@ .1" - .5" w.c. ESP; Rise Range: 30 - 60°F)				
Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	713	495	57
	Minus 5%	752	523	49
	Normal	792	550	41
	Plus 5%	832	578	43
	Plus 10%	871	605	46
B	Minus 10%	778	540	52
	Minus 5%	821	570	49
	Normal	864	600	47
	Plus 5%	907	630	45
	Plus 10%	950	660	43
C	Minus 10%	842	585	48
	Minus 5%	889	618	45
	Normal	936	650	43
	Plus 5%	983	683	41
	Plus 10%	1,030	715	39
D	Minus 10%	907	630	45
	Minus 5%	958	665	42
	Normal	1,008	700	40
	Plus 5%	1,058	735	38
	Plus 10%	1,109	770	36

*MVC950704CX Cooling/Heating Speed Charts

*MVC950704CX Cooling Speed (@ .1" - .8" w.c. ESP)			
Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	540	351
	Minus 5%	570	371
	Normal	600	390
	Plus 5%	630	410
	Plus 10%	660	429
B	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
C	Minus 10%	990	644
	Minus 5%	1,045	679
	Normal	1,100	715
	Plus 5%	1,155	751
	Plus 10%	1,210	787
D	Minus 10%	1,286	836
	Minus 5%	1,358	883
	Normal	1,429	929
	Plus 5%	1,500	975
	Plus 10%	1,572	1,022

*MVC950704CX Heating Speed (@ .1" - .5" w.c. ESP; Rise Range: 30 - 60°F)				
Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,089	756	56
	Minus 5%	1,150	798	53
	Normal	1,210	840	50
	Plus 5%	1,271	882	48
	Plus 10%	1,331	924	46
B	Minus 10%	1,193	828	51
	Minus 5%	1,259	874	48
	Normal	1,325	920	46
	Plus 5%	1,391	966	44
	Plus 10%	1,458	1,012	42
C	Minus 10%	1,296	900	47
	Minus 5%	1,368	950	44
	Normal	1,440	1,000	42
	Plus 5%	1,512	1,050	40
	Plus 10%	1,584	1,100	38
D	Minus 10%	1,400	972	43
	Minus 5%	1,477	1,026	41
	Normal	1,555	1,080	39
	Plus 5%	1,633	1,134	37
	Plus 10%	1,711	1,188	35

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

BLOWER PERFORMANCE SPECIFICATIONS

*MVC950905CX Cooling/Heating Speed Charts

*MVC950905CX Cooling Speed (@ .1" - .8" w.c. ESP)			
Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	729	495
	Minus 5%	770	523
	Normal	810	550
	Plus 5%	851	578
	Plus 10%	891	605
B	Minus 10%	990	693
	Minus 5%	1,045	732
	Normal	1,100	770
	Plus 5%	1,155	809
	Plus 10%	1,210	847
C	Minus 10%	1,323	900
	Minus 5%	1,397	950
	Normal	1,470	1,000
	Plus 5%	1,544	1,050
	Plus 10%	1,617	1,100
D	Minus 10%	1,629	1,125
	Minus 5%	1,720	1,188
	Normal	1,810	1,250
	Plus 5%	1,901	1,313
	Plus 10%	1,991	1,375

*MVC950905CX Heating Speed (@ .1" - .5" w.c. ESP; Rise Range: 30 - 60°F)				
Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,341	945	60
	Minus 5%	1,416	998	57
	Normal	1,490	1,050	54
	Plus 5%	1,565	1,103	51
	Plus 10%	1,639	1,155	49
B	Minus 10%	1,413	1,008	57
	Minus 5%	1,492	1,064	54
	Normal	1,570	1,120	51
	Plus 5%	1,649	1,176	49
	Plus 10%	1,727	1,232	47
C	Minus 10%	1,521	1,080	53
	Minus 5%	1,606	1,140	50
	Normal	1,690	1,200	48
	Plus 5%	1,775	1,260	45
	Plus 10%	1,859	1,320	43
D	Minus 10%	1,602	1,125	50
	Minus 5%	1,691	1,188	47
	Normal	1,780	1,250	45
	Plus 5%	1,869	1,313	43
	Plus 10%	1,958	1,375	41

*MVC950905DX Cooling/Heating Speed Charts

*MVC950905DX Cooling Speed (@ .1" - .8" w.c. ESP)			
Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
B	Minus 10%	900	644
	Minus 5%	950	679
	Normal	1,000	715
	Plus 5%	1,050	751
	Plus 10%	1,100	787
C	Minus 10%	1,260	819
	Minus 5%	1,330	865
	Normal	1,400	910
	Plus 5%	1,470	956
	Plus 10%	1,540	1,001
D	Minus 10%	1,620	1,053
	Minus 5%	1,710	1,112
	Normal	1,800	1,170
	Plus 5%	1,890	1,229
	Plus 10%	1,980	1,287

*MVC950905DX Heating Speed (@ .1" - .5" w.c. ESP; Rise Range: 30 - 60°F)				
Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,458	1,013	55
	Minus 5%	1,539	1,069	52
	Normal	1,620	1,125	50
	Plus 5%	1,701	1,181	47
	Plus 10%	1,782	1,238	45
B	Minus 10%	1,549	1,076	52
	Minus 5%	1,635	1,135	49
	Normal	1,721	1,195	47
	Plus 5%	1,807	1,255	45
	Plus 10%	1,893	1,315	43
C	Minus 10%	1,640	1,139	49
	Minus 5%	1,731	1,202	46
	Normal	1,822	1,265	44
	Plus 5%	1,913	1,328	42
	Plus 10%	2,004	1,392	40
D	Minus 10%	1,730	1,202	47
	Minus 5%	1,826	1,268	44
	Normal	1,922	1,335	42
	Plus 5%	2,018	1,402	40
	Plus 10%	2,114	1,469	38

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

BLOWER PERFORMANCE SPECIFICATIONS

*MVC951155DX Cooling/Heating Speed Charts

*MVC951155DX Cooling Speed (@ .1" - .8" w.c. ESP)			
Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
B	Minus 10%	990	644
	Minus 5%	1,045	679
	Normal	1,100	715
	Plus 5%	1,155	751
	Plus 10%	1,210	787
C	Minus 10%	1,260	819
	Minus 5%	1,330	865
	Normal	1,400	910
	Plus 5%	1,470	956
	Plus 10%	1,540	1,001
D	Minus 10%	1,620	1,053
	Minus 5%	1,710	1,112
	Normal	1,800	1,170
	Plus 5%	1,890	1,229
	Plus 10%	1,980	1,287

*MVC951155DX Heating Speed (@ .1" - .5" w.c. ESP; Rise Range: 35 - 65°F)				
Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise (°F)
A	Minus 10%	1,594	1,107	63
	Minus 5%	1,682	1,169	60
	Normal	1,771	1,230	57
	Plus 5%	1,860	1,292	54
	Plus 10%	1,948	1,353	52
B	Minus 10%	1,640	1,139	62
	Minus 5%	1,731	1,202	59
	Normal	1,822	1,265	56
	Plus 5%	1,913	1,328	53
	Plus 10%	2,004	1,392	50
C	Minus 10%	1,685	1,170	60
	Minus 5%	1,778	1,235	57
	Normal	1,872	1,300	54
	Plus 5%	1,966	1,365	51
	Plus 10%	2,059	1,430	49
D	Minus 10%	1,730	1,202	58
	Minus 5%	1,826	1,268	55
	Normal	1,922	1,335	53
	Plus 5%	2,018	1,402	50
	Plus 10%	2,114	1,469	48

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

BLOWER PERFORMANCE SPECIFICATIONS

*CVC950714CX Cooling/Heating Speed Charts

***CVC950714CX**
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	594	324
	Minus 5%	627	342
	Normal	660	360
	Plus 5%	693	378
	Plus 10%	726	396
B	Minus 10%	747	468
	Minus 5%	789	494
	Normal	830	520
	Plus 5%	872	546
	Plus 10%	913	572
C	Minus 10%	1,017	702
	Minus 5%	1,074	741
	Normal	1,130	780
	Plus 5%	1,187	819
	Plus 10%	1,243	858
D	Minus 10%	1,314	864
	Minus 5%	1,387	912
	Normal	1,460	960
	Plus 5%	1,533	1,008
	Plus 10%	1,606	1,056

***CVC950714CX**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 25 - 55°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,107	783	77
	Minus 5%	1,169	827	73
	Normal	1,230	870	69
	Plus 5%	1,292	914	66
	Plus 10%	1,353	957	63
B	Minus 10%	1,215	855	71
	Minus 5%	1,283	903	68
	Normal	1,350	950	64
	Plus 5%	1,418	998	61
	Plus 10%	1,485	1,045	58
C	Minus 10%	1,323	936	65
	Minus 5%	1,397	988	61
	Normal	1,470	1,040	58
	Plus 5%	1,544	1,092	55
	Plus 10%	1,617	1,144	53
D	Minus 10%	1,440	1,017	59
	Minus 5%	1,520	1,074	56
	Normal	1,600	1,130	53
	Plus 5%	1,680	1,187	51
	Plus 10%	1,760	1,243	49

*CVC950915DX Cooling/Heating Speed Charts

***CVC950915DX**
Cooling Speeds
(@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	729	504
	Minus 5%	770	532
	Normal	810	560
	Plus 5%	851	588
	Plus 10%	891	616
B	Minus 10%	999	666
	Minus 5%	1,055	703
	Normal	1,110	740
	Plus 5%	1,166	777
	Plus 10%	1,221	814
C	Minus 10%	1,287	828
	Minus 5%	1,359	874
	Normal	1,430	920
	Plus 5%	1,502	966
	Plus 10%	1,573	1,012
D	Minus 10%	1,674	1,071
	Minus 5%	1,767	1,131
	Normal	1,860	1,190
	Plus 5%	1,953	1,250
	Plus 10%	2,046	1,309

***CVC950915DX**
Heating Speed
(@ .1" - .5" w.c. ESP; Rise Range: 25 - 55°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,458	1,008	80
	Minus 5%	1,539	1,064	76
	Normal	1,620	1,120	72
	Plus 5%	1,701	1,176	68
	Plus 10%	1,782	1,232	65
B	Minus 10%	1,575	1,098	73
	Minus 5%	1,663	1,159	69
	Normal	1,750	1,220	66
	Plus 5%	1,838	1,281	63
	Plus 10%	1,925	1,342	60
C	Minus 10%	1,674	1,152	70
	Minus 5%	1,767	1,216	66
	Normal	1,860	1,280	63
	Plus 5%	1,953	1,344	60
	Plus 10%	2,046	1,408	57
D	Minus 10%	1,773	1,206	67
	Minus 5%	1,872	1,273	63
	Normal	1,970	1,340	60
	Plus 5%	2,069	1,407	57
	Plus 10%	2,167	1,474	55

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

BLOWER PERFORMANCE SPECIFICATIONS

GCVC951155DX Cooling/Heating Speed Charts

GCVC91155DX*
ACVC951155DX*
Cooling Speeds
(@.1"-.8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	705	457
	Minus 5%	744	483
	Normal	783	508
	Plus 5%	822	533
	Plus 10%	861	559
B	Minus 10%	982	621
	Minus 5%	1,036	656
	Normal	1,091	690
	Plus 5%	1,146	725
	Plus 10%	1,200	759
C	Minus 10%	1,265	815
	Minus 5%	1,336	861
	Normal	1,406	906
	Plus 5%	1,476	951
	Plus 10%	1,547	997
D	Minus 10%	1,628	1,049
	Minus 5%	1,719	1,107
	Normal	1,809	1,165
	Plus 5%	1,899	1,223
	Plus 10%	1,990	1,282

GCVC91155DX*
ACVC951155DX*
Heating Speeds
(@.1"-.5" w.c. ESP; Rise Range: 40 - 70°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,583	1,093	63
	Minus 5%	1,671	1,153	59
	Normal	1,759	1,214	56
	Plus 5%	1,847	1,275	53
	Plus 10%	1,935	1,335	51
B	Minus 10%	1,612	1,106	61
	Minus 5%	1,701	1,168	58
	Normal	1,791	1,229	55
	Plus 5%	1,881	1,290	52
	Plus 10%	1,970	1,352	50
C	Minus 10%	1,654	1,166	60
	Minus 5%	1,746	1,231	57
	Normal	1,838	1,296	54
	Plus 5%	1,930	1,361	51
	Plus 10%	2,022	1,426	49
D	Minus 10%	1,690	1,172	59
	Minus 5%	1,784	1,237	56
	Normal	1,878	1,302	53
	Plus 5%	1,972	1,367	50
	Plus 10%	2,066	1,432	48

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

BLOWER PERFORMANCE SPECIFICATIONS

Circulator Blower Speed Adjustment Switches

Switch Bank	Purpose	Function	Dip Switch			
			1	2	3	4
S1	Heating Off Delay	90	Off	Off		
		120	On	Off		
		150	Off	On		
		180	On	On		
	Thermostat Setup	2 Stage Stat			On	On
		2 Stage Stat			On	Off
		1 Stg Stat 5 min delay			Off	Off
		1 Stg Stat auto delay			Off	On
S3	Cooling Airflow	A	Off	Off		
		B	On	Off		
		C	Off	On		
		D	On	On		
	Trim	Add 5%			Off	Off
		Minus 5%			On	Off
		Add 10%			Off	On
		Minus 10%			On	On
S4	Ramping Profile	A	Off	Off		
		B	On	Off		
		C	Off	On		
		D	On	On		
	Heating Airflow	A			Off	Off
		B			On	Off
		C			Off	On
		D			On	On
S5	Dehum	Disabled	Off			
		Enabled	On			
	Trim	Disabled		Off		
		Enabled		On		
	Continuous Fan	25%			Off	Off
		50%			On	Off
		75%			Off	On
		100%			On	On

Note: There are dual 7-segment LED's adjacent to the selection dipswitches. The airflow (rounded to the nearest 100 CFM) is displayed on the dual 7-segment LED's. The CFM display alternates with the operating mode.

Example:

If the airflow demand is 1230 CFM, the LED's will display 12. If the airflow demand is 1275 CFM, the LED's will display 13.

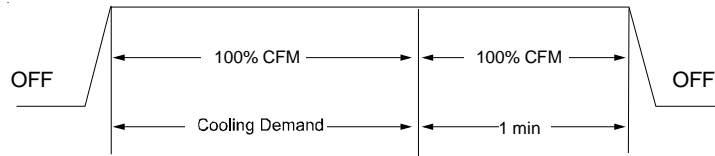
Note: The optional usage of a dehumidistat allows the furnace's circulator blower to operate at a slightly lower speed (85% of desired speed) during a combined thermostat call for cooling and dehumidistat call for dehumidification. This can be done through an independent dehumidistat or through a thermostat's DEHUM terminal (if available). This lower blower speed enhances dehumidification of the conditioned air as it passes through the AC coil. For proper function, a dehumidistat applied to this furnace must operate on 24 VAC and utilize a switch which *opens on humidity rise*.

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

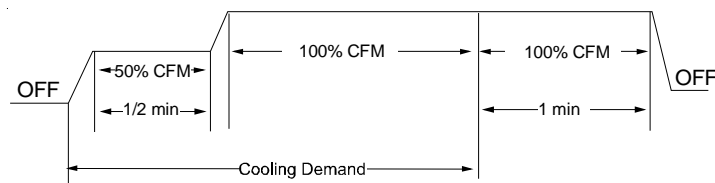
BLOWER PERFORMANCE SPECIFICATIONS

Ramping Profile

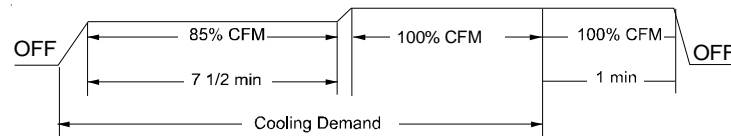
Note: The multi-speed circulator blower also offers several custom ON/OFF ramping profiles. These profiles may be used to enhance cooling performance and increase comfort level. The ramping profiles are selected using DIP switches 5 and 6. Refer to the following figure for switch positions and their corresponding taps. Refer to the bullet points below for a description of each ramping profile. Verify CFM by noting the number displayed on the dual 7-segment LED display.



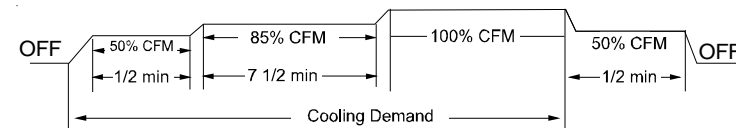
Profile A: provides only an OFF delay of one (1) minute at 100% of the cooling demand airflow.



Profile B: ramps up to full cooling demand airflow by first stepping up to 50% of the full demand for 30 seconds. The motor then ramps to 100% of the required airflow. A one (1) minute OFF delay at 100% of the cooling airflow is provided.



Profile C: ramps up to 85% of the full cooling demand airflow and operates there for approximately 7 1/2 minutes. The motor then steps up to the full demand airflow. Profile C also has a one (1) minute 100% OFF delay.



Profile D: ramps up to 50% of the demand for 1/2 minute, then ramps to 85% of the full cooling demand airflow and operates there for approximately 7 1/2 minutes. The motor then steps up to the full demand airflow. Profile D has a 1/2 minute at 50% airflow OFF delay.

1. All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.
2. For most jobs, about 400 CFM per ton when cooling is desirable.
3. Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.
4. Continuous fan speeds of 25%, 50%, 75% of maximum cooling airflow are available when using a communicating thermostat and 25%, 50%, 75%, 100% of maximum cooling airflow are available in legacy mode by setting dip switches

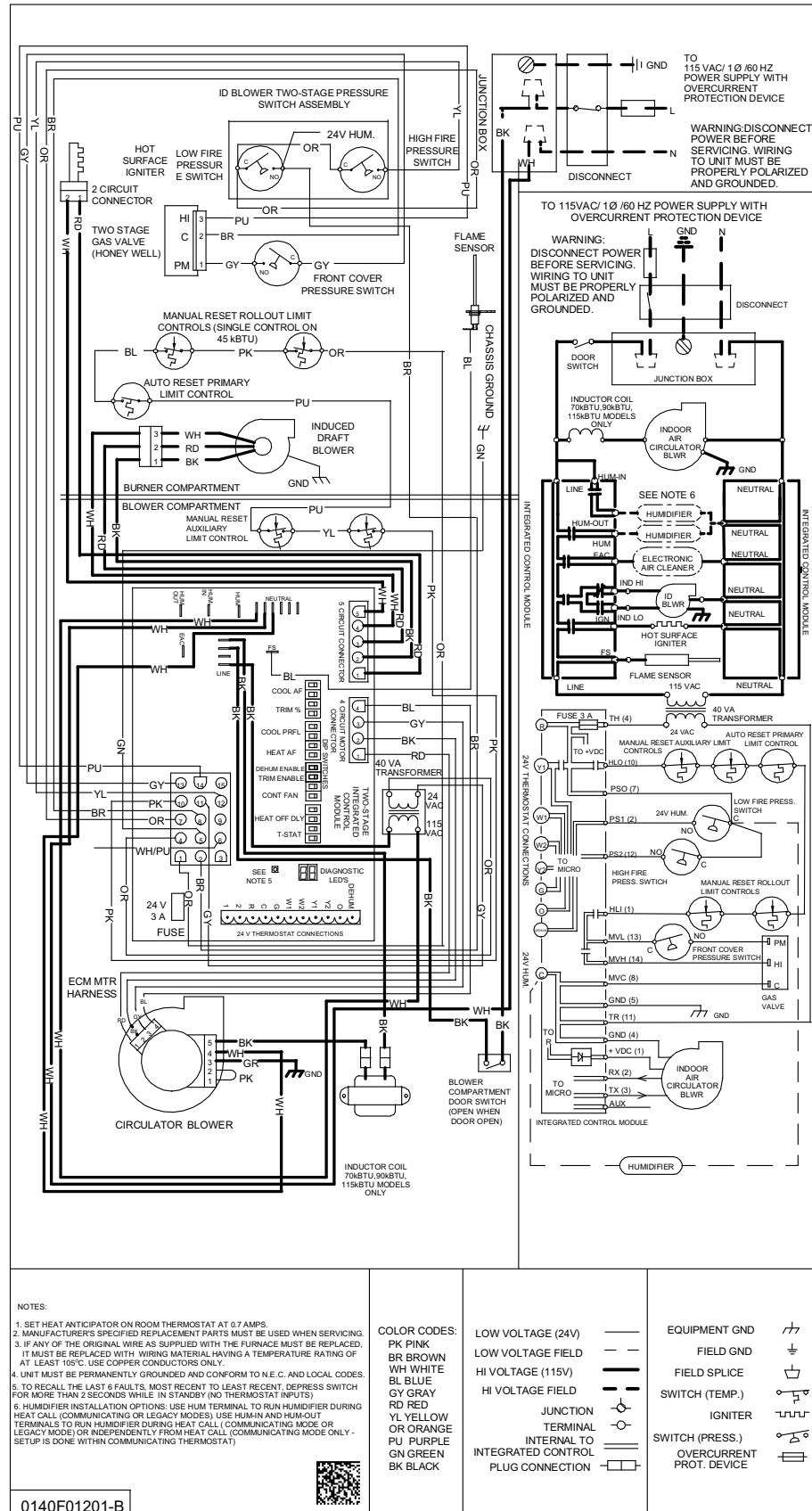
WIRING DIAGRAMS

*CVC9/*MVC95_A*



WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

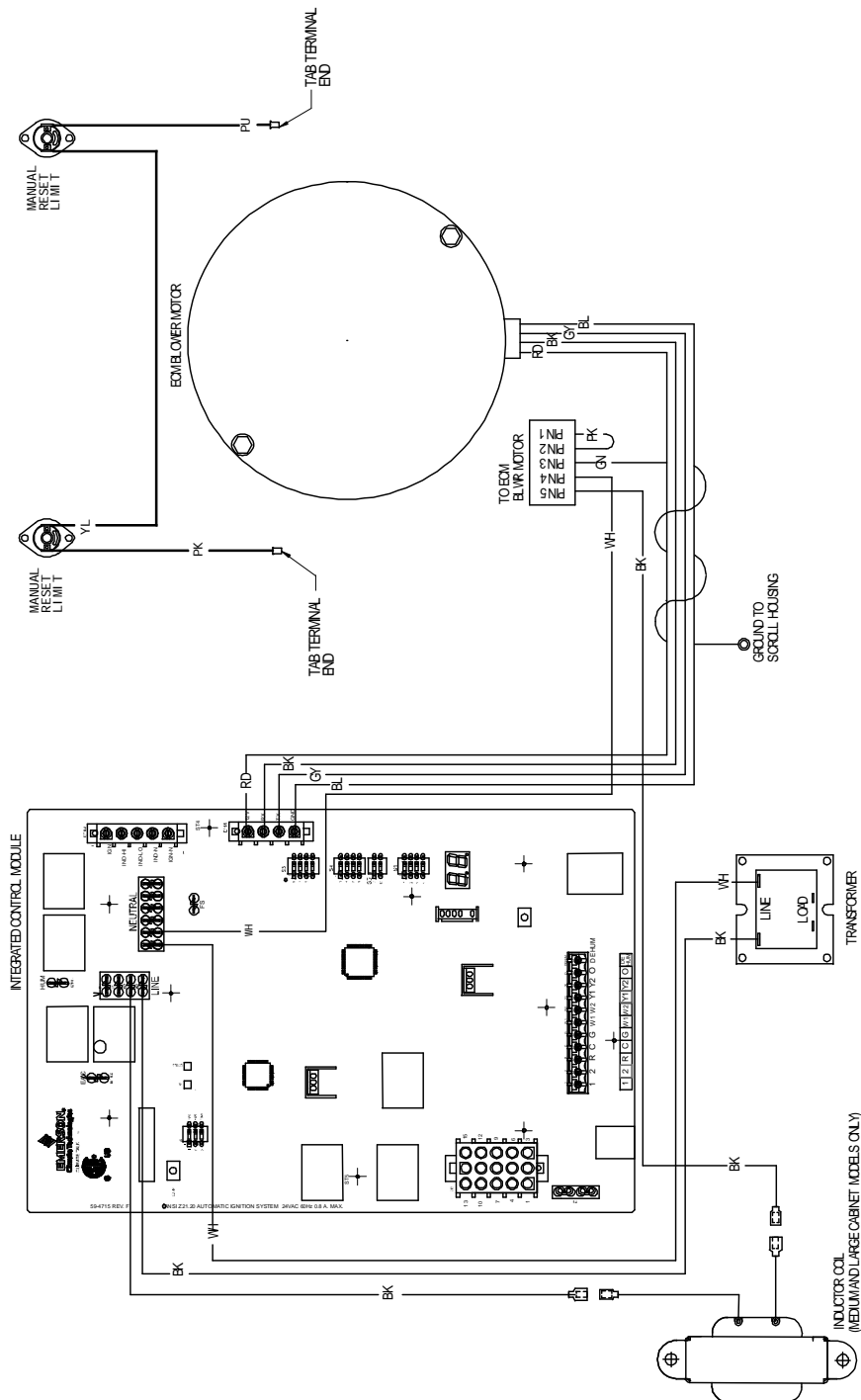


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

SCHEMATICS

WARNING

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BLOWER ASSEMBLY SCHEMATIC
 ACVC9/AMVC95/GVC9/GMVC95____X* MODEL FURNACES
 This schematic is for reference only. Not all wiring is as shown above,
 refer to the appropriate wiring diagram for the unit being serviced.

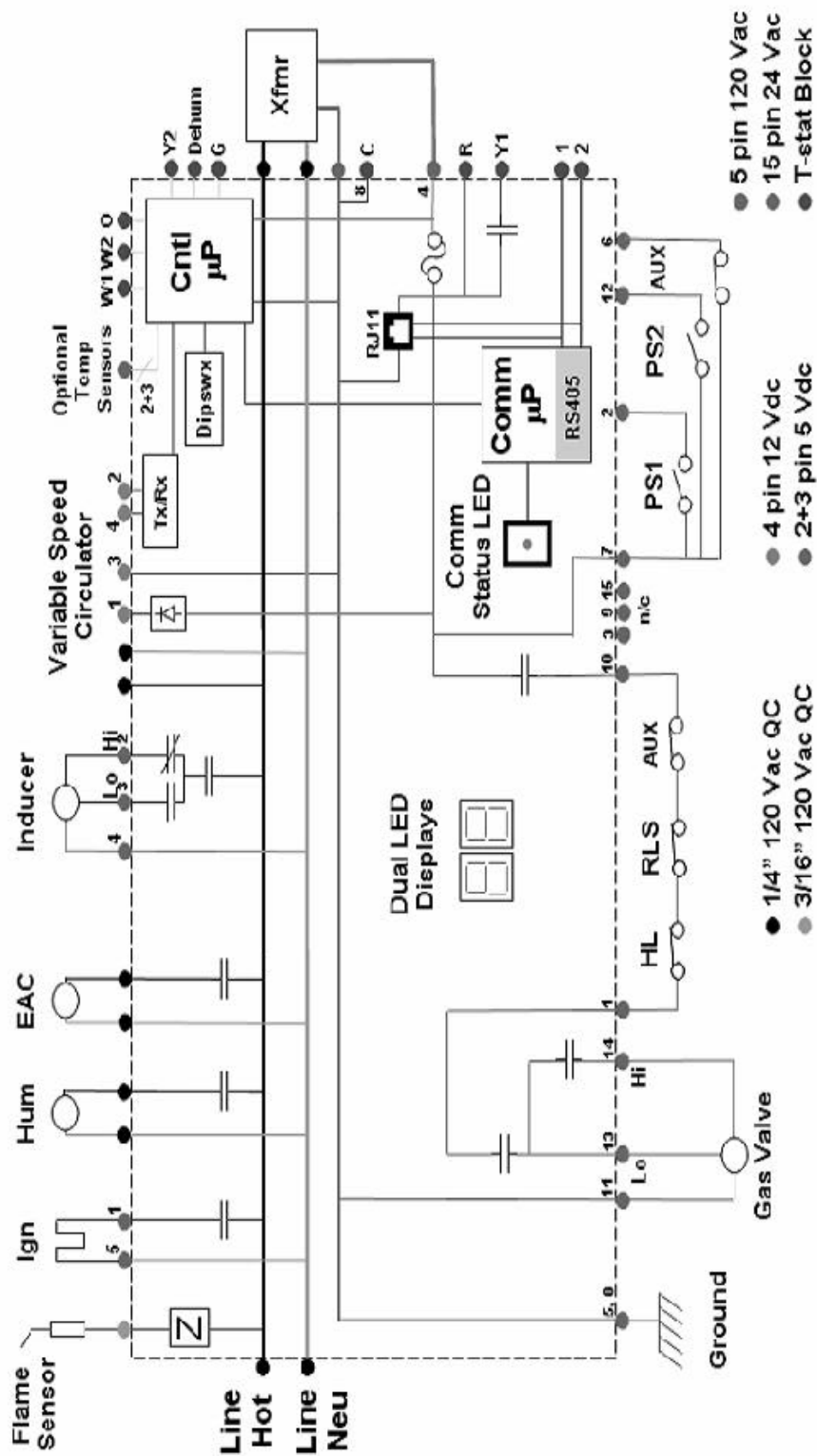
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

SCHEMATICS

WARNING

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⚡



TYPICAL SCHEMATIC
 ACVC9/AMV95/GCV95/GMVC95_X* MODEL FURNACES
 PCBKF103

This schematic is for reference only. Not all wiring is as shown above. Refer to the appropriate wiring diagram for the unit being serviced.